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ABSTRACT

Part of a series of classroom aids designed for real estate instructors, this instructional packet was developed to help real estate students understand the various alternative mortgage instruments, including their major advantages and disadvantages. First, an evaluation form for the packet is presented. Next, a summary presentation on four basic categories of alternatives to the standard fixed-rate mortgage is provided for instructors, keyed to accompanying overhead masters. The presentation covers: (1) mortgage plans that reduce initial payments (i.e., interest-only loans, graduated-payment mortgages, and price-level adjusted mortgages); (2) plans that accelerate amortization (i.e., growing-equity mortgages and zero interest mortgages); (3) plans that provide for variable payments or terms which reflect changes in market interest rates (i.e., variable-maturity loans, variable-payment loans, and capped-payment loans); and (4) plans that allow borrowers to benefit from the rising value of the equity in their homes without having to sell or refinance (i.e., shared-appreciation mortgages and reverse-annuity mortgages). Finally, 4 handouts and 15 overhead transparencies are presented. (AYC)

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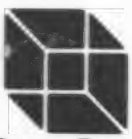
TEACHERS INSTRUCTIONAL PACKET
TIP No. 4
Spring 1985

GUIDE TO ALTERNATIVE MORTGAGE INSTRUMENTS



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TIPS on the TIP

This Teacher Instructional Packet (TIP) is designed to provide the real estate instructor with a classroom aid. Packets have been reviewed carefully, but there is always room for improvement. Suggestions are welcomed.

Introduction to TIP-4

TIP-4 has been developed to help students understand the various alternative mortgage instruments, including their major advantages and disadvantages.

This material is a **supplement** to existing course content. It is not a "pat" presentation. Instructors should modify the TIP as needed.

NOTE: Copies of the TRERC Technical Report, "Guide to Alternative Mortgage Instruments," were mailed to the Texas real estate instructors. Additional copies are available for $1 each ($2 for out-of-state orders). Request publication No. 279. Instructors have permission to reproduce their complimentary copy in full or in part providing no changes are made to the content.

INSTRUCTORS EVALUATION

In order for the Texas Real Estate Research Center to be able to better assess the effectiveness of this packet, your input is requested. Please complete this form and return it to the address provided.

CONCEPT

1. What overall rating would you give this concept?

useless 1 2 3 4 5 6 7 8 9 10 invaluable

RATING THE ELEMENTS

2. How do you rate the elements of this TIP?

Content:

too general 1 2 3 4 5 6 7 8 9 10 too technical

Amount of material:

too little 1 2 3 4 5 6 7 8 9 10 too much

Format:

too simple 1 2 3 4 5 6 7 8 9 10 too complex

STRENGTHS AND WEAKNESSES

3. What were the strengths of the package? _____

_____

_____

_____

4. What were the weaknesses of the package? _____

_____

_____

SUGGESTIONS

5. What specific changes would you like to see in future TIPs?

_____

_____

6. What additional topics would you suggest for the TIP series?

a. _____ c. _____

b. _____ d. _____

EXPECTED USE

7. Do you expect using this packet in the next three months?

_____ yes _____ no

8. If you answered "yes" to question 7, to what classes will this material be presented?

_____

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TIP-1
Revised 1985

GUIDE TO ALTERNATIVE MORTGAGE INSTRUMENTS

Instructor Summary

The standard fixed-payment mortgage has been the dominant vehicle for home financing. In an economy with fluctuating rates of inflation the fixed-payment mortgage has distinct disadvantages. As rising rates of inflation contribute to changing interest rates, the fixed-rate mortgage creates a system of winners and losers between lenders and borrowers.

To overcome these problems, the lending industry has devised a number of alternatives to the standard fixed-rate mortgage. This summary report highlights some of these alternatives along with advantages and drawbacks of each.

Alternate plans fall into four basic categories according to their primary intent:

Visual # 1
Four Basic Categories

1. Provide for low initial payments to assist buyers in qualifying for a loan.

2. Accelerate the amortization process to minimize overall interest costs.

3. Provide for variable payments or terms which reflect changes in market interest rate.

4. Allow borrowers to benefit from the rising value of the equity in their home without having to sell or refinance.

Plans for Reducing Initial Payments

Visual # 2
Plans for Reducing Initial Payments

Plans that reduce initial payments include:

(1) Interest-Only Loans

(2) Graduated-Payment Mortgage
(3) Price-Level Adjusted Mortgage

Interest-Only Loans are common in short-term financing to reduce carrying costs while seeking a resale or arranging permanent financing. When used as a long-term financing device the loan generally is structured to begin amortizing after the fifth year.

Visual # 3
Interest-Only Loans

Graduated-Payment Mortgages (GPM) defer principal payments and also a portion of the interest on the outstanding balance. The GPM does this by deferring a portion of interest payments and adding them to the principal balance during the first few years of the mortgage term. Each year the monthly payments increase until they reach a level that amortizes the original loan plus deferred interest payments.

Visual # 4
Graduated-Payment Mortgage (GPM)

GPMs provide substantial reductions in first year payments allowing more families to qualify for loans. While the payments rise in subsequent years, it is assumed the borrower's income will increase at a similar rate.

Disadvantages include possible failure of the family's income to increase leading to an ultimate default and an initial increase in the loan balance. In a declining real estate market the loan balance could exceed the market price of the home.

Price-Level Adjusted Mortgage (PLAM) is the most complex of the reduced payment plans covered in this summary report. It is an indexed loan that has the effect of reducing initial payments. Payment reduction is achieved by basing monthly payments on a full amortizing mortgage at the real rate of interest (nominal rate minus inflation premium). Although actual payments fluctuate, they conceptually remain constant when adjusted for inflation. The lender is protected form unanticipated increases in the inflation rate through the indexing mechanism.

Visual # 5
Price-Level-Adjusted Mortgage (PLAM)

The main disadvantage with the PLAM is that a portion of the lender's return is deferred through additions to the unpaid balance. If property values do not increase at the same rate of wage and price inflation, owner's equity could become negative.

HANDOUT A: Comparisons of Fixed-Rate, Interest-Only, Graduated-Payment and Price-Level-Adjusted Mortgages.

Handout A shows how each plan may reduce payments in the early years.....

Plans to Accelerate Amortization. Two plans have been devised to provide rapid amortization of loan principal:

Visual # 6
Plans to Accelerate Amortization

(1) Growing-Equity Mortgage
(2) Zero-Interest Mortgage

The Growing-Equity Mortgage (GEM) provides earlier mortgage retirement. A GEM may be originated at a payment level that would amortize the loan over 30 years with level payments. Instead, payments are graduated each year according to some rule and the loan is typically retired within 15 years.

Visual # 7
Growing-Equity Mortgage (GEM)

A GEM may be attractive to borrowers if offered at a lower rate of interest than fixed-payment loans. Total interest costs are lower. Lenders may also prefer rapidly amortizing loans when interest rates are rising.

Zero Interest Mortgage (ZIM) loans are used by homebuilders to promote sales when mortgage interest rates reach peak levels. Typically, these loans require a cash down-payment of a third or more and a series of equal monthly payments which equal the remainder of the home's price.

Visual # 8
Zero Interest Mortgage (ZIM)

HANDOUT B
Growing-Equity Mortgage Comparison

Handout B shows the effect of each loan on the maturity.

One approach to the problem of fluctuating interest rates is to change the mortgage loan interest rate during the loan term to allow it to be more

Visual # 9
Plans that Allow for Variable-Interest Rates

sensitive to short-term interest rates. This is the objective of the Adjustable-Rate Mortgage (ARM) and the Adjustable Mortgage Loan (AML). Three types of plans which allow for variable interest rates are:

(1) Variable-Maturity Loans
(2) Variable-Payment Loans
(3) Capped-Payment Loans.

All ARMs and AMLs allow the lender to periodically adjust the interest rate on the loan. With the ARM, the adjustment interval must be at least six months while the AML has no such limitation. Interest rate changes are made in relation to an index. The AML lender may choose the index while the ARM lender may choose from among a list of authorized indexes. The rate on an ARM cannot be adjusted more than one percentage point per six-month interval and no more than five points overall. No such limit is required on the AMLs.

Variable-Maturity Loans

Visual # 10
Variable-Maturity Loans

The variable-maturity mortgage makes adjustments by shortening or extending the term of the loan, while the monthly payments remain constant. This allows the lender to adjust the interest rate on the loan without changing monthly payments and borrower can plan their personal budgets.

Problems with this plan occur when interest rates rise significantly during the life of the loan. A situation could arise where the remaining term becomes infinite, setting up a situation in which the loan will never be repaid. Regulations of ARMs and AMLs limit the term to 40 years.

If interest rates fall dramatically the borrower receives no immediate benefits.

A loan plan using a combination of variable-payment and variable-maturity might be offered in the future.

Variable-Payment Loans

Visual # 11
Variable-Payment Loans

The variable-payment mortgage reflects the interest rate change fully in monthly payment changes. This plan readily handles significant increases in interest rates, however, this results in an unpredictable pattern of loan payments for the borrower.

Capped-Payment Loans

Visual # 12
Capped-Payment Loans

Some AMLs provide for limitations on how much payments may be changed when the interest rate is adjusted. Limiting payments may be accomplished in two ways. The loan may call for payment adjustments less frequent than interest rate adjustments or impose a limit on the change in the payment. An example would be a limit of 5 percent on any payment increase or decrease, regardless of the interest rate change.

With these types of loans, when the interest rate increase is not fully reflected in the payments, the potential for negative amortization is created. Negative amortization cannot occur for an indefinite period and regulations require the AML to be recast at least every five years. If significant negative amortization has occurred prior to recasting, the payments could rise dramatically.

HANDOUT C
Comparison of Various Adjustable-rate loans

HANDOUT C shows the effect of changes in the index or monthly payments.

Equity Benefit Plans

Visual # 13
Equity Benefit Plans

Several plans have been devised to take advantage of the rising value of the home owner's equity.

The Shared-Appreciation Mortgage (SAM) offers the owner reduced periodic payments in exchange for sharing eventual resale proceeds with the

Visual #14
Shared-Appreciation Mortgage

lender. At some point in the future, the home is sold and a portion (up to 40 percent) of the net appreciation is claimed by the lender. If the borrower does not wish to sell, the SAM must be refinanced with a non-SAM loan.

HANDOUT D
Comparison of Fixed-Rate and Shared-Appreciation Mortgage

The Reverse-Annuity-Mortgage (RAM) is designed to provide income to elderly owners who have developed a substantial equity in their home but still need to occupy the structure. Under this plan (RAM) the homeowner may contract with a lender to receive a set amount of money each year. The lender either provides the funds or purchases an annuity program from a life insurance company. As each annual payment is made, the outstanding amount of the loan is increased and is secured by a subordinate lien on the subject property. The loan is eventually repaid when:

Visual # 15
Reverse-Annuity Mortgage (RAM)

(1) the property is sold
(2) borrower dies
(3) loan reaches a maximum amount in relation to the property value.

HANDOUT A

Comparison of Monthly Payment and Outstanding Balance for the First Six Years for a Standard Fxed Rate Mortgage, Interest-Only Loan, Graduated-Payment Plan and Price-Level-Adjusted Mortgage.*

Type of Plan		Monthly Payment and Principal Balance at End of Year Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Standard Fixed Rate Mortgage	Monthly Payment	553	553	553	553	553	553
	Principle Balance	49,854	49,689	49,500	49,285	49,041	48,763
Interest-Only Five Years		542 50,000	542 50,000	542 50,000	542 50,000	542 50,000	564 49,716
Graduated-Payment Mortgage		428	460	495	532	572	615
(FHA 245, Plan III)		51,447	52,635	53,654	54,284	54,492	54,183
Price-Level-Adjusted Mortgage		211	232	255	281	309	339
(3% Real Rate, 10% Inflation)		53,862	57,935	62,254	66,807	71,593	76,604

* $50,000 Mortgage Value; 13% Interest Rate; 30-Year Term.

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HANDOUT B

Monthly Payment, Outstanding Principal Balance and Effective Term for Various Growing-Equity Mortgages*

Method for Graduating Payments	Monthly Payment And Principal Balance At End Of Year					Loan Amortizes After
	Year 1	Year 2	Year 3	Year 4	Year 5	
Fixed $25 per Month	553.10 49,854	578.10 49,370	603.10 48,500	628.10 47,192	653.10 45,385	13 years and 3 months
Fixed 5%	553.10 49,854	580.76 49,336	609.79 48,377	640.28 46,896	672.30 44,803	12 years and 2 months
3/4% of Remaining Principal Balance per Year	553.10 49,854	584.26 49,292	615.07 48,259	645.23 46,699	674.41 44,552	12 years and 10 months

* $50,000 Mortgage Value; 13% Interest Rate; 30-Year Term.

HANDOUT C

Effect of 1/2 Percent Interest Rate Change in First Year for Various Adjustable-Rate Loans

Type	Original Monthly Payment i = 10%	Change in Second Year					
		i = 10 1/2%			i = 9 1/2%		
		Payment	Balance End of Year	Remaining Term	Payment	Balance End of Year	Remaining Term
Fixed-rate Loan	$439	$439	$49,415	29 yrs.	$439	$49,415	29 yrs.
Variable-Maturity	439	439	49,677	45 yrs., 8 mos.	439	49,138	24 yrs.
Variable-Payment	439	457	49,444	29 yrs.	421	49,383	29 yrs.
Payment Fixed for Three Years	439	439	49,672	29 yrs.	439	49,153	29 yrs.
Payment Capped at 2% Maximum Change	439	448	49,559	29 yrs.	430	49,266	29 yrs.

Loan amount = $50,000, Term = 30 years.

HANDOUT D

Comparison of Monthly Payments and Equity Accumulation for Fixed-Payment Mortgage and Shared-Appreciation Mortgage

	Initial	Year 1	Year 2	Year 3	Year 4	Year 5
Fixed-Payment Mortgage:						
Monthly Payment[a]		553	553	553	553	553
Value of Property[b]	62,500	65,625	68,906	72,352	75,969	79,767
Mortgage Balance	50,000	49,854	49,689	49,500	49,285	49,041
Homeowner's Equity	12,500	15,771	19,217	22,852	26,684	30,726
Shared-Appreciation Mortgage:						
Monthly Payment[c]		393	393	393	393	393
Value of Property	62,500	65,625	68,905	72,352	75,969	79,767
Mortgage Balance	50,000	49,641	49,248	48,821	48,354	47,844
Lender's Share[d]		1,042	2,135	3,284	4,490	5,756
Homeowner's Equity	12,500	14,942	17,522	20,247	23,125	26,167

a $50,000 loan for 30 years at 13% interest
b Annual appreciation of 5%
c One-third reduction of interest rate to 8 3/4%
d One-third share of net appreciation

FOUR BASIC CATEGORIES

1. Low initial payments
2. Accelerates amortization
3. Variable payments or terms
4. Borrowers benefit from rising value of equity

PLANS FOR REDUCING INITIAL PAYMENTS

1. *Interest-only loan*

Defers principal payments first few years

2. *Graduated-payment mortgage*

Applies deferred interest payments to principal balance during first few years

3. *Price-level-adjusted mortgage*

Indexed loan that has effect of reducing initial payments

INTEREST-ONLY LOAN

Advantages

- Lender receives full return on principal
- Mortgage balance does not increase

Disadvantage

- Provides only minor relief in payments in early years

GRADUATED-PAYMENT MORTGAGE (GPM)

Advantages

- Payment burden more in line with current income
- Additional families qualify

Disadvantages

- Failure of family income to increase could cause default
- Initially the loan balance increases, which could cause default rate to increase

PRICE-LEVEL-ADJUSTED MORTGAGE (PLAM)

Advantages

- Substantial reduction in initial payments
- If family income tied to inflation rate, payments are constant in relation to income

Disadvantages

- Portion of lender's return deferred through additions to unpaid balance
- Owner's equity may become negative
- Negative amortization continues for long time

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PLANS TO ACCELERATE AMORTIZATION

Growing-Equity Mortgage (GEM)

- Provides earlier mortgage retirement by graduated payment each year

Zero-Interest Mortgages (ZIM)

- Short-term loans with zero interest rates and high cash down payment

GROWING-EQUITY MORTGAGE (GEM)

Advantages

- Provides earlier mortgage retirement by graduating payments
- Lower cost of interest over life of loan

Disadvantage

- Increase in payments preordained while increases in personal income speculative

ZERO-INTEREST MORTGAGE (ZIM)

Advantages

- No interest payments
- Loan paid off over short term

Disadvantages

- Requires one-third home price as down payment
- Payment level comparable to standard mortgage only at high rates of interest

PLANS THAT ALLOW FOR VARIABLE-INTEREST RATES

Variable-Maturity Loans

- Loan term may be shortened or extended

Rates rise: term extended. Rates drop: term shortened.

Variable-Payment Loans

- Payments may be raised or lowered

Rates rise: payments increase. Rates drop: payments decrease.

Capped-Payment Loans

- Interest rates may vary but payments remain constant or vary within fixed limits for fixed periods
- Limit imposed on change in payment

VARIABLE-MATURITY LOAN

Advantages

- Payment constant but retires loan at faster or slower pace depending on interest rate changes
- Borrowers can plan personal budgets with some security

Disadvantages

- If rates rise significantly, term could become infinite
- Adjustment in term does not alleviate cash-flow problems for lender
- If rates decline, borrower receives no immediate benefit

VARIABLE-PAYMENT LOAN

Advantage

- Lenders more willing to make long-term loans when interest rates changing

Disadvantage

- Unpredictable pattern of loan payments

CAPPED-PAYMENT LOAN

Advantages

- Provides stability to loan payment pattern
- Payment adjustments less frequent than interest-rate adjustments
- Impose set limit on change in payment

Disadvantages

- Creates potential for negative amortization
- When loan recast, payment may increase dramatically

EQUITY BENEFIT PLAN

Shared-Appreciation Mortgage

- Offers owner reduced periodic payments in exchange for sharing eventual resale proceeds with lender

Reverse-Annuity Mortgage

- Provides income to elderly with substantial home equity but need occupancy

SHARED-APPRECIATION MORTGAGE (SAM)

Advantages

- Rate of interest lower than market value
- No period of negative amortization
- Lender partially compensated for inflationary increases to enhanced value of appreciation share

Disadvantages

- Lender may exercise more oversight of manner that property is maintained and method used to market property for resale
- Less cash at resale to invest in next home purchase because resale proceeds split with lender

REVERSE-ANNUITY MORTGAGE (RAM)

Advantages

- Provides older homeowners opportunity to obtain cash from equity while retaining ownership and right to occupy
- Use income to offset remaining mortgage payments or use as supplemental retirement income

Disadvantages

- May be impractical when mortgage rates high
- Annuity income affected by life expectancy of beneficiary
- Complications arise when borrower survives past normal life expectancy or dies prematurely

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